

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number  
**WO 2005/050222 A1**

(51) International Patent Classification<sup>7</sup>: **G01N 33/68**

(74) Agents: MEYERS, Hans-Wilhelm et al.; Postfach 10 22 41, 50462 Köln (DE).

(21) International Application Number:  
PCT/EP2004/013111

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:  
18 November 2004 (18.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/523,097 19 November 2003 (19.11.2003) US

(71) Applicant (*for all designated States except US*): EVOTEC NEUROSCIENCES GMBH [DE/DE]; Schnackenburgallee 114, 22525 Hamburg (DE).

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

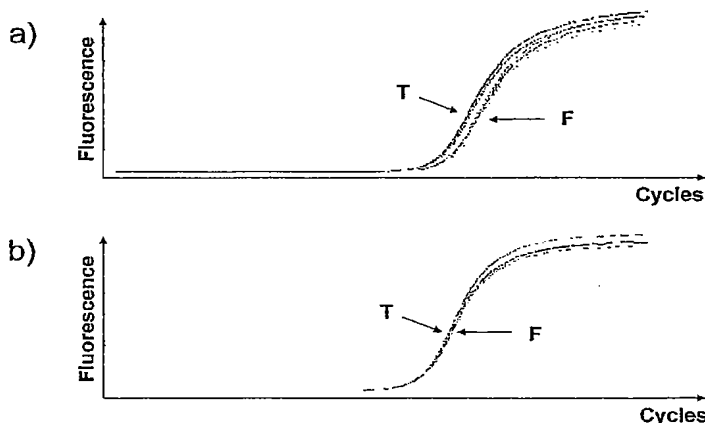
(75) Inventors/Applicants (*for US only*): HESTERKAMP, Thomas [DE/DE]; Nordhäuser Weg 18, 22455 Hamburg (DE). VON DER KAMMER, Heinz [DE/DE]; Verbindungsstr. 6d, 22607 Hamburg (DE). POHLNER, Johannes [DE/DE]; Quittenweg 11, 22175 Hamburg (DE).

Published:  
— with international search report

[Continued on next page]

(54) Title: DIAGNOSTIC AND THERAPEUTIC USE OF THE HUMAN SGPL1 GENE AND PROTEIN FOR NEURODEGENERATIVE DISEASES

Verification of differential expression  
of human SGPL1 by quantitative RT-PCR



(57) Abstract: The present invention discloses the differential expression of a gene coding for SGPL1 in specific brain regions of Alzheimer's disease patients. Based on this finding, the invention provides a method for diagnosing or prognosticating a neurodegenerative disease, in particular Alzheimer's disease, in a subject, or for determining whether a subject is at increased risk of developing such a disease. Furthermore, this invention provides therapeutic and prophylactic methods for treating or preventing Alzheimer's disease and related neurodegenerative disorders using the SGPL1 gene and its corresponding gene products. A method of screening for modulating agents of neurodegenerative diseases is also disclosed.



— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.